

Asthma  
Surveillance Report



July-September  
2011

## Asthma in Montana

- **7% of children and 9% of adults reported having current asthma**
- **There were 646 reported asthma hospitalizations in 2009**
- **26% of children with current or active asthma reported having an urgent visit to a health care provider for worsening symptoms**
- **49% of children reported missing school and 39% of adults reported missing work due to asthma in the last year**

Data Sources: BRFSS 2010, Montana Hospital Discharge Data, and  
Asthma Call-Back Survey 2006-2009

# Meeting Our Asthma Control Goals

## National Asthma Control Goals

Asthma is one of the most prevalent chronic diseases in the United States. Many national programs focus on improving the lives of people with asthma by providing education, appropriate medication, and skills for managing their disease. With appropriate education, medication and medical management, asthma can be controlled and should not disrupt a person's daily activities.

By establishing national goals for asthma control, all organizations can work toward evidence-based criteria to help improve the lives of people with this disease. National goals also help ensure that monies spent around the country are being used well and allocated appropriately.

Several national groups provide guidelines and goals for the country. The National Heart, Lung, and Blood Institute<sup>1</sup> provides treatment and care guidelines for clinicians treating patients with asthma, Healthy People (HP)<sup>2</sup> objectives provide education and outcome goals for federal, state, and private organizations, and the Government Performance and Results Act (GPRA)<sup>3</sup> establishes goals for federal programs. This report summarizes Montana data on the progress towards meeting HP and GPRA measures.

## Measuring Asthma Control Goals in Montana

The Montana Asthma Call-back Survey is a telephone survey of non-institutionalized adults aged 18 and over. Participants are recruited from the Behavioral Risk Factor Surveillance System (BRFSS) respondents if they indicate that they either had or currently have asthma. A child is also randomly selected from the household and the parent or guardian responds to a selection of the questions on their behalf. After the BRFSS survey, individuals with asthma (or their parents or guardians) are then called again and asked more in-depth questions about their experience with asthma. Montana has participated in this call-back survey, sponsored by the Centers for Disease Control and Prevention, annually since 2006.

The Montana Office of Vital Statistics collects death record information for the state's residents. All records are coded with an underlying cause of death and up to 20 contributing causes of death. For this report, records from 2000-2009 that were coded as J45 and J46 were considered asthma deaths.

The Montana Hospital Association provides the DPHHS with hospital discharge data each year. For this report, hospitalizations occurring in 2009 with a primary diagnosis of asthma (ICD-9 code 493) were included.

Table 1. Healthy People 2020 Goals for Asthma			
Objective	Target	Baseline (US)	Montana
<b>Reduce the rate of asthma deaths</b>			
Children and adults under age 35 (per million)	**	3.4	*
Adults aged 35 to 64 (per million)	6.0	11.0	8.5 (5.8-12.0) <sup>§</sup>
Adults aged 65 and older (per million)	22.9	43.3	66.4 (53.2-82.0) <sup>§</sup>
<b>Reduce the rate of asthma hospitalizations</b>			
Children under age 5 (per 10,000)	18.1	41.4	17.6 (14.3-20.9) <sup>§</sup>
Children and adults aged 5 to 64 (per 10,000)	8.6	11.1	5.3 (4.8--5.9) <sup>§</sup>
Adults aged 65 and older (per 10,000)	20.3	25.3	8.7 (7.2-10.3) <sup>§</sup>
<b>Reduce the rate of asthma emergency department visits</b>			
Children under age 5 (per 10,000)	95.5	132.7	***
Children and adults aged 5 to 64 (per 10,000)	49.1	56.4	***
Adults aged 65 and older (per 10,000)	13.2	21.0	***
<b>Reduce proportion of people with current asthma who experience activity limitations due to asthma</b>			
Persons with current asthma who experience activity limitations due to chronic lung and breathing problems	10.2%	12.7%	***
Children aged 5 to 17 years with asthma who miss school days	48.7%	58.7%	49.3% (36.7%-61.8%) <sup>§</sup>
Adults aged 18 to 64 with asthma who miss work days	26.8%	33.2%	39.4% (32.3%-46.4%) <sup>§</sup>
<b>Increase proportion of persons who received formal asthma education</b>			
Persons with current asthma who receive formal patient education	14.4%	12.1%	6.5% (2.3%-10.7%) <sup>§</sup>
<b>Increase the proportion of persons with current asthma who receive appropriate asthma care according to National Asthma Education and Prevention Program guidelines</b>			
Persons with current asthma who receive written asthma management plans from their health care provider	36.8%	33.4%	27.3% (21.1%-33.6%) <sup>§</sup>
Persons with current asthma with prescribed inhalers who receive instruction on their use	**	95.9%	98.8% (97.8%-99.8%) <sup>§</sup>
Persons with current asthma who receive education about appropriate response to an asthma episode, including recognizing early signs and symptoms or monitoring peak flow results	68.5%	64.8%	78.3% (72.6%-83.9%) <sup>§</sup>
Persons with current asthma who do not use more than one canister of short-acting inhaled beta agonist (SABA) per month	90.2%	87.9%	***
Persons with current asthma who have been advised by a health care professional to change things in their home, school, and work environment to reduce exposure to irritants or allergens to which they are sensitive	54.5%	50.8%	28.9% (22.1%-35.6%) <sup>§</sup>
*Too few events to calculate a reliable rate. ** Being tracked for informational purposes. If warranted, a target will be set during the decade *** Data not available for calculation § 95% Confidence Interval			

# Healthy People 2020 Goals: Goals Met and Areas for Improvement

The HP initiative aims to improve the nation's health by setting achievable 10 year goals. Specific objectives have been set for a variety of health topics to measure prevention efforts. The HP 2020 asthma related objectives are listed in Table 1.

**Goals met:** Montana has met the HP 2020 goals for asthma hospitalizations and has nearly met the goal for reducing the percent of students who miss school due to asthma.

**Areas for improvement:** Montana has not met the HP 2020 goals for reducing asthma deaths for age groups 35-64 and 65+. Montana also has a long way to go in terms of meeting some of the medical management and asthma education goals.

- Montana needs to more than double the current percent of people with asthma who have received formal asthma education in order to meet the goal for asthma education.
- Work needs to be done to increase the percent of adults with asthma who report having received an asthma action plan and who have been advised on changing things in the home, work, or school environments to avoid asthma triggers in order to meet the HP 2020 goal.

In addition, Montana needs to improve existing data collection systems to measure these goals. Emergency department visits, activity limitations, and SABA overuse for asthma cannot be measured at this time. The Montana Asthma Control Program (MACP) is actively pursuing data sources to measure these goals.

## GPRA Measures

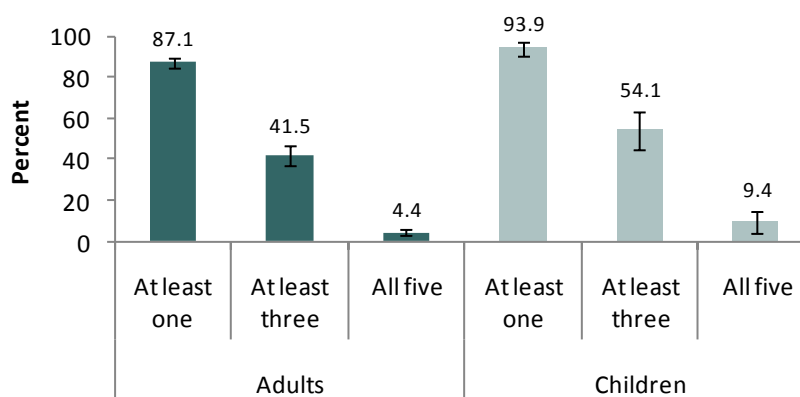
The GPRA was established in 1993 to provide strategic planning and performance measurements for the federal government. Federal programs are required to select a GPRA measure to track programmatic objectives. The Centers for Disease Control and Prevention has selected the GPRA goal of increasing asthma self-management education (ASME). The measure is calculated using data from five questions included in the Asthma Call-Back Survey. A person is considered to have received ASME if they report having received at least three of five educational pieces of information (Table 2).

- Around 90% of adults and children report having received at least one part of asthma self-management education (Figure).
- Only 41.5% of adults and 54.1% of children with current asthma meet the GPRA measure of having had at least three components of ASME (Figure).
- Few adults (4.4%) and children (9.4%) with current asthma report having received all five components of ASME (Figure).

**Table 2. Survey Questions**

Ever taught to recognize early signs and symptoms of an asthma attack
Ever taught what to do during an asthma attack
Ever taught how to use a peak flow meter
Ever given an asthma action plan
Ever taken a course on how to manage asthma

**Figure. Percent of adults and children having received one, three, or five components of asthma education, Montana, 2006-2009**



I = 95% Confidence Interval

## Discussion and Key Clinical Recommendations

The MACP implements public health interventions designed to meet national asthma goals for reducing mortality and morbidity. We thank our statewide partners for their support and efforts to reach these goals as well. Health care providers, including asthma educators, should consider the following for care of patients with asthma:

- Work with patients to ensure proper medication and education have been administered to decrease the chances of a severe exacerbation leading to an ED visit or a missed day from school or work.
- Review and update each asthma patient's asthma action plan and provide ASME at each visit.
- Help patients identify asthma triggers in their home, work, or school environment and provide information or assistance in avoiding those triggers.
- Consider using the MACP's Asthma Care Monitoring System to help track your asthma patients' symptoms, triggers, medication, and education received.
- Contact the MACP at 406-444-7304 or visit [www.asthmamontana.com](http://www.asthmamontana.com) for more information.

### Footnotes

1. <http://www.nhlbi.nih.gov/guidelines/asthma/index.htm>
2. <http://www.healthypeople.gov/2020/default.aspx>
3. <http://www.whitehouse.gov/omb/mgmt-gpra/gplaw2m>

For more information, visit the Asthma Control Program website: <http://dphhs.mt.gov/asthma>



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## Meeting National Asthma Control Goals



### LOOK INSIDE FOR INFORMATION ON:

- National goals and targets for achieving asthma control
- How Montana compares to national baseline measures for Healthy People 2020 goals
- Suggestions for improving asthma control for your patients

The Montana Asthma Control Program is funded through the Montana State Legislature and the Centers for Disease Control and Prevention. The goal of the program is to improve the quality of life for all Montanans with asthma. For more information, visit our website at <http://dphhs.mt.gov/asthma>

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